TURBULENCE IN CMEs

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Solar wind structures associated with coronal mass ejections have many distinguishing attributes. These attributes include for example, the relative abundance of helium, bi-directional electron streaming and high intensity helical largescale magnetic fields. Another distinguishing attribute may be the character of the MHD turbulence inside C\ 4Es. We study fluctuations of the CME magnetic fields measured by 1SEE3 and Ulysses spacecraft. The spectra and high-order structure functions characterizing the intermittency are found. The results are compared with those obtained for the quasi-stationary solar wind. The anisotropy of fluctuations in CMEs is estimated. This anisotropy is higher than that in the interplanetary medium due to the stronger magnetic fields. The helical properties of the turbulence inside CMEs are discussed.

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